

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-41. (Canceled)

42. (Currently amended) A method for determining whether a test colon cell has an ~~ulcerative colitis (UC) or Crohn's disease (CD)~~ inflammatory bowel disease (IBD) phenotype, said method comprising:

(a) determining an expression level of each of the following genes in said test colon cell:

(i) a macrophage inflammatory protein-2 $\beta$  (GRO3) gene;

(ii) a neutrophil lipocalin (HNL) gene;

(iii) a macrophage elastase (MMP-12) gene;

(iv) an elastase specific inhibitor (elafin) gene; and

(v) a type VI collagen  $\alpha 3$  chain (COL6A3) gene;

(b) comparing the expression level of each of said GRO3, HNL, MMP-12, elafin, and COL6A3 genes in said test colon cell to an expression level of the same gene in a normal colon cell; and

(c) associating an increase in the expression level of ~~each~~ any of said GRO3, HNL, MMP-12, elafin, and COL6A3 genes in said test colon cell relative to the expression level of the same gene in said normal colon cell with ~~a UC~~ an IBD phenotype in said test colon cell; ~~and~~

~~(d) associating an increase in the expression level of each of said MMP-12 and elafin genes in said test colon cell relative to the expression level of the same gene in said normal colon cell and a normal expression level of each of said GRO3, HNL, and COL6A3 genes with a CD phenotype in said test colon cell.~~

43-45. (Canceled)

1                   46.     (Currently amended) The method of claim 42, wherein said test colon cell  
2     has ~~a-UC~~ an IBD phenotype when the expression level of ~~each~~ any of said GRO3, HNL, MMP-  
3     12, elafin, and COL6A3 genes in said test colon cell is increased relative to the expression level  
4     of the same gene in said normal colon cell by at least a factor of two.

1                   47.     (Previously presented) The method of claim 42, wherein said test colon  
2     cell is obtained from a needle biopsy core, a surgical resection sample, or a bowel sample.

1                   48.     (Previously presented) The method of claim 42, wherein the expression  
2     level of said genes is determined using Northern blot analysis, reverse transcription-polymerase  
3     chain reaction, in situ hybridization, or an array.

1                   49.     (Previously presented) The method of claim 48, wherein said array  
2     comprises:

3                   (a) nucleic acid probes of 12-40 nucleotides in length, wherein said nucleic acid probes  
4     are complementary to said genes and hybridize under high stringency conditions to said genes;  
5     and

6                   (b) a substrate to which said nucleic acid probes are bound.

1                   50.     (Previously presented) The method of claim 49, wherein said substrate is  
2     selected from the group consisting of paper, membranes, filters, chips, pins, and glass.

1                   51.     (Previously presented) The method of claim 49, wherein said nucleic acid  
2     probes are bound to said substrate by covalent bonds or hydrophobic interactions.

1                   52.     (Previously presented) The method of claim 49, wherein said nucleic acid  
2     probes are spotted onto said substrate in a two-dimensional matrix or array.

1                   53-56. (Canceled)